

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A wireless communication method for assigning multi-paths to Rake receiver fingers, the method comprising:

establishing a Rake finger assignment database;

categorizing a plurality of multi-path signals in the database into a verified group and an unverified group, wherein the verified group includes multi-path signals that have been detected more than once and the unverified group includes multi-path signals that have not been detected more than once;

categorizing the multi-path signals in the verified group into an assigned subgroup and an unassigned subgroup, wherein each of the multi-path signals in the assigned subgroup is assigned to a Rake receiver finger and each of the multi-path signals in the unassigned subgroup is not assigned to a Rake receiver finger, wherein each multi-path signal is assigned a respective bin in the database, wherein each bin has that includes a data structure having that includes a pilot phase data field and a verification flag data field;

during a measurement interval, receiving a plurality of newly measured multi-path signals;

comparing each newly measured multi-path signal to the multi-path signals in the database to determine if each newly measured multi-path signal is found in the database; and

if a multi-path signal in the database, that belongs to the unassigned subgroup, matches a newly measured multi-path signal, setting the verification flag data field such that it indicates that the multi-path signal is verified and updating the relative phase of the multi-path signal in the pilot phase data field.

2. (previously presented): The method of claim 1 further comprising:
comparing the signal strength of each multi-path signal to a predetermined noise floor threshold; and

if the signal strength of the multi-path signal is less than the noise floor threshold, removing the multi-path signal from the database.

3. (original): The method of claim 2 wherein if the removed multi-path signal is categorized in the assigned group, the Rake receiver finger is no longer assigned to the removed multi-path signal.

4. (previously presented): The method of claim 1 further comprising:
if a newly measured multi-path signal is not found in the database, adding the newly measured multi-path signal to the database.

Claims 5 and 6 (canceled)

7. (original): The method of claim 1 wherein each multi-path signal is assigned a respective bin in the database, said bin including a data structure including a data field indicating the pilot phase of the multi-path signal.

8. (original): The method of claim 1 wherein each multi-path signal is assigned a respective bin in the database, said bin including a data structure including a data field indicating the averaged signal strength of the multi-path signal.

9. (original): The method of claim 1 wherein each multi-path signal is assigned a respective bin in the database, said bin including a data structure including a data field identifying an assigned Rake receiver finger.

10. (currently amended): A wireless communication apparatus for assigning multi-paths to Rake receiver fingers, the apparatus comprising:

a Rake finger assignment database, wherein a plurality of multi-path signals are categorized in the database into a verified group and an unverified group, the verified group including multi-path signals that have been detected more than once and the unverified group includes multi-path signals that have not been detected more than once, and the multi-path signals are categorized in the verified group into an assigned subgroup and an unassigned subgroup, wherein each of the multi-path signals in the assigned subgroup is assigned to a Rake receiver finger and each of the multi-path signals in the unassigned subgroup is not assigned to a Rake receiver finger, wherein each multi-path signal is assigned a respective bin in the database, wherein each bin has that includes a data structure having that includes a pilot phase data field and a verification flag data field, and during a measurement interval, a plurality of newly measured multi-path signals are received and compared to the multi-path signals in the database to determine if each newly measured multi-path signal is found in the database, and the verification flag data field is set such that it indicates that the multi-path signal is verified if a multi-path

signal in the database, that belongs to the unassigned subgroup, matches a newly measured multi-path signal, and the relative phase of the multi-path signal in the pilot phase data field is updated.

11. (previously presented): The apparatus of claim 10 wherein the signal strength of each multi-path signal is compared to a predetermined noise floor threshold, and the multi-path signal is removed from the database if the signal strength of the multi-path signal is less than the noise floor threshold.

12. (previously presented): The apparatus of claim 11 wherein if the removed multi-path signal is categorized in the assigned group, the Rake receiver finger is no longer assigned to the removed multi-path signal.

13. (previously presented): The apparatus of claim 10 wherein the newly measured multi-path signal is added to the database, if a newly measured multi-path signal is not found in the database.

Claims 14 and 15 (canceled)

16. (previously presented): The apparatus of claim 10 wherein each multi-path signal is assigned a respective bin in the database, said bin including a data structure including a data field indicating the pilot phase of the multi-path signal.

17. (previously presented): The apparatus of claim 10 wherein each multi-path signal is assigned a respective bin in the database, said bin including a

data structure including a data field indicating the averaged signal strength of the multi-path signal.

18. (previously presented): The apparatus of claim 10 wherein each multi-path signal is assigned a respective bin in the database, said bin including a data structure including a data field identifying an assigned Rake receiver finger.

19. (previously presented): The apparatus of claim 13 wherein the measurement interval occurs on a frame-by-frame basis.

20. (previously presented): A wireless communication apparatus for assigning multi-paths to Rake receiver fingers, the apparatus comprising:

a processor which includes a path search scheduler for receiving signals from higher layers and generating scheduling data;

a memory device in communication with the processor, wherein the memory device has a first portion for receiving the scheduling data and storing the results of a pilot path search process performed by the path search scheduler, and a second portion for storing the results of a pilot strength measurement (PSM) process running on the processor, wherein the processor implements a path position detection process and a finger assignment process for providing an assignment to a Rake finger pool, the path position detection process searching for all multi-paths for a plurality of wireless transmit/receive units (WTRUs) in a round-robin search order; and

a path search vector correlator (VC) grid for receiving data from the first portion of the memory device and providing an output which is evaluated by the

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PSM process to generate evaluation results which are stored in the second portion of the memory device for access by the path position detection process.